

RECOVERY WITH INFLATION

Congress of the United States

Congressional Budget Office

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

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PREFACE

Recovery With Inflation is one of a series of reports on the state of the economy issued periodically by the Congressional Budget Office. In keeping with CBO's mandate to provide nonpartisan analysis of policy options, the report contains no recommendations. It was prepared by Bill Beeman, Marvin Phaup, Cornelia Motheral, Michael Owen, Richard Stromberg, Christine Kuduk, and other members of the Fiscal Analysis staff, under the direction of Frank de Leeuw. The report was typed by Dorothy J. Kornegay and Marsha Mottesheard and edited by Patricia H. Johnston.

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SUMMARY

As recovery from the 1973-1975 recession enters its third year, the economy continues to suffer from a large volume of unused resources. The best-known measure of unused resources, the unemployment rate, stood at 7.1 percent in June. This statistic must be interpreted with caution since an unemployment rate of 7.1 percent today is equivalent, in terms of labor market pressures, to a rate at least 1 percentage point lower twenty years ago. Some other indicators of unused resources do not show as much contrast with earlier recoveries as the unemployment rate; but they, too, indicate a continuing, if diminishing, gap between actual and potential output.

In spite of persisting economic slack, prices continue to rise at roughly a six percent annual rate. Short spurts or declines in food and energy prices push the overall indexes away from 6 percent; but when the temporary forces abate, the underlying rate returns. This report concentrates on the puzzle of continuing inflation in a slack economy. It discusses the outlook for a continuation of this situation, the origin and momentum of high rates of inflation, and possible remedies for inflation in a slack economy.

The outlook has not changed significantly since the enactment of the First Concurrent Resolution on the 1978 Budget. Signs of more vigorous growth in spring data are being succeeded by some weakness in the latest data. Averaging through these fluctuating indicators, CBO's projections show a slow narrowing of the gap between actual and potential output with the rate of inflation remaining high by historical standards. Growth in real output (GNP in 1972 dollars) is projected as slowing from its recent 7 percent annual rate to a range of 3.6 to 5.1 percent in 1978. Growth in this range is enough to reduce unemployment and narrow the output gap, but only at a slow pace. The unemployment rate is estimated to decline to the 5.9 to 6.9 percent range at the end of 1978. Consumer prices, which rose by 6.7 percent over the last 12 months, are projected to increase more slowly as food prices moderate. An increase of 4.5 to 6.5 percent in 1978 is projected. The forecast is summarized in the following table.

ECONOMIC PROJECTIONS, 1977-1978

	1977	1978
Growth in Constant-Dollar GNP, Fourth Quarter to Fourth Quarter (Percent)	5.0 to 6.0	3.6 to 5.1
Unemployment Rate, Fourth Quarter (Percent)	6.6 to 7.2	5.9 to 6.9
Inflation Rate, Consumer Price Index, Fourth Quarter to Fourth Quarter (Percent)	6.0 to 7.0	4.5 to 6.5

The assumptions underlying this forecast include:

- o Food price increases settling down to a 5 to 6 percent annual rate of increase and energy prices continuing to rise at a 10 to 12 percent rate;
- o A slight shortfall in federal spending below the First Concurrent Resolution on the Federal Budget for Fiscal Year 1978;
- o Growth in the broadly defined money stock (M2) near the upper end of the 7 to 9.5 percent target range recently announced by the Chairman of the Federal Reserve Board.

The forecast does not include the effects of the President's energy proposals or other Presidential initiatives not embodied in the first concurrent resolution. Additional spending or tax reductions would raise projected economic growth in 1978.

Changes in outlays would have little effect on prices in 1978, although increases in energy excise taxes or payroll taxes could add to inflation in that year. The principal reason why the inflation forecast continues fairly high by historical standards is that once inflation is anticipated as a continuing feature of economic life, it gets built into a great many economic contracts and decisions and develops very strong momentum. During the last decade, inflation has become embedded strongly in our economic machinery. The rapid spread of cost-of-living-adjusted labor contracts, the reflection of inflationary expectations in a broad spectrum of interest rates, and the automatic linking of major federal entitlement programs to consumer price increases are a few important examples.

There are no costless ways to reduce inflation quickly. Contractionary macroeconomic policies reduce inflation eventually but carry a grave risk of causing recession. A fiscal policy restrictive enough to take 1 percentage point off the rate of inflation three years from now is estimated to cost 1.2 percentage points more in the unemployment rate--an addition of more than a million to the number of unemployed workers--in the first year of the policy, and continuing serious unemployment impacts for several years thereafter.

Wage and price guidelines or controls have succeeded in reducing inflation while they have been in effect. Evidence suggests, however, that part of the gain in lower inflation rates is only temporary and that there are often substantial associated problems of evasion, inefficiency, and inequity. Policies to reduce price increases in individual sectors--control of hospital costs or holding down increases in the minimum wage, for example--can lead to modest improvement in the inflation outlook, but are strongly resisted by the groups whose incomes might be adversely affected.

Finally, a number of tax incentive and related schemes to penalize inflation or reward wage stability may offer a promising strategy, but must be rated uncertain because they are untried. Further thought and possibly experimentation with these newer ideas and perseverance on special steps for individual sectors may yield some benefits. As a basis for budget planning for 1978, however, the realistic outlook is for no more than a slow unwinding of the current rate of inflation.

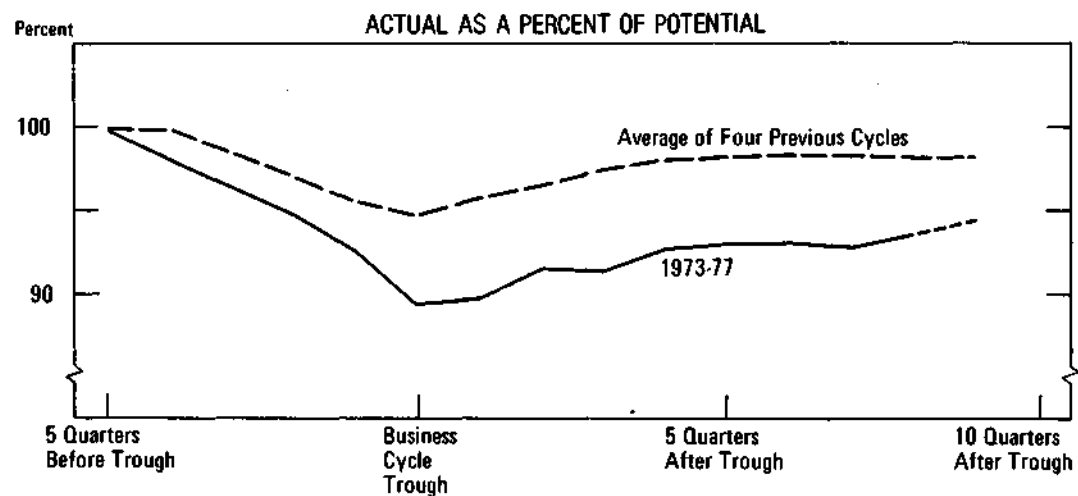
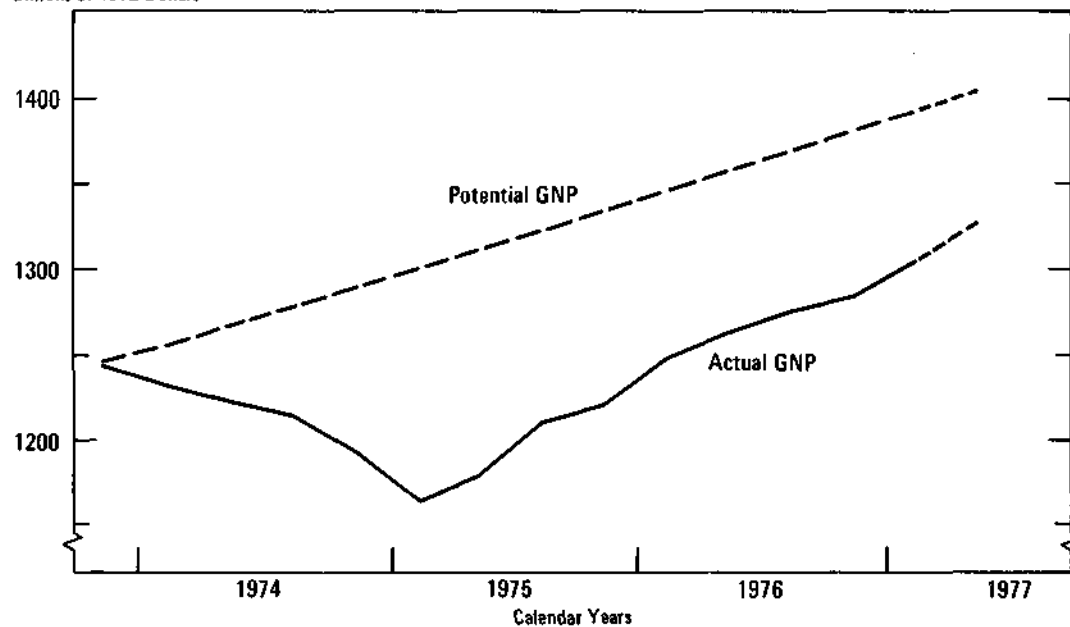
As the upswing following the 1973-1975 recession enters its third year, the economy continues to suffer from a large volume of unused resources. The most comprehensive measure of unused resources is the gap between real Gross National Product (GNP), the nation's output of goods and services, and potential real GNP, a measure of the economy's productive capacity. In late 1973 before the recession began, there was no gap: actual real GNP was equal to estimated potential GNP (see Figure 1). ^{1/}

By the trough of the recession in the first quarter of 1975, a gap had opened up equal to nearly 11 percent of potential GNP and about twice as large as the average gap which developed during the previous four recessions. The subsequent expansion cut the gap in half by the second quarter of 1977, to just under 6 percent. Although the situation has greatly improved since early 1975, the gap still represents a loss of about \$500 of GNP per person annually and remains much larger than the average gap at the same stage in earlier expansions. (In the bottom panel of Figure 1 and in several subsequent figures, the current recession-recovery period is compared with previous recession-recovery periods, lined up so that the cycle troughs are plotted at the same calendar quarter.)

^{1/} Potential GNP is the amount of real GNP the economy could produce with high utilization of labor and capital resources. Output above potential is not impossible but is likely to be accompanied by accelerating inflation. The estimate of potential GNP used in this report is the recently revised one described in the January 1977 Economic Report of the President, pp. 52-56. It takes account of changing rates of growth of productivity, of the labor force, and of the stock of fixed capital, and of a 0.9 percentage point increase in the estimated unemployment rate at potential, discussed in the text below. The level of potential GNP is a matter of controversy among economists; some have proposed higher, and some lower, measures than the one used in this report.

Figure 1
Actual and Potential Real GNP

Billions of 1972 Dollars



SOURCES: Actual GNP — U.S. Department of Commerce, Bureau of Economic Analysis.
Second quarter 1977 estimated by CBO.

Potential GNP — Council of Economic Advisers, Economic Report of the President, 1977.

NOTES: The latest value plotted for 1973-77 is an estimate for the second quarter of 1977.

The business cycle trough is the last quarter of recession, as designated by the National Bureau of Economic Research.

In spite of the large volume of unused resources, inflation continues at a rate of approximately 6 percent. To be sure, the rate of inflation has come down sharply from the double-digit rates of 1974. But the peak rates of 1974 were heavily influenced not only by worldwide demand pressures but also by high farm price increases, the ending of general price controls, and the OPEC quadrupling of crude oil prices. It is the ending of the effects of these special factors that explains the bulk of the reduction in inflation since 1974.

Even after the reduction, the current rate of inflation remains above rates during the same stage of earlier expansions, as shown in Figure 2. Inflation seems unlikely to continue to accelerate as it did in 1969-1974, since the special factors just discussed were beginning to drive up prices during the third year of that expansion. On the other hand, no one is projecting a rapid return of the inflation rate to the 2 percent average of earlier recoveries (an average depressed somewhat by wage and price guidelines during one of the expansions and an early recession terminating another).

In a textbook world, the persistence of a larger than usual volume of unused resources should help moderate wage demands and lead to intensified competition and price discounts. Evidently in the U.S. economy today, this is not happening or is happening very slowly. This report focuses on the possible causes of, and possible remedies for, this apparent paradox.

HOW MUCH UNUSED RESOURCES?

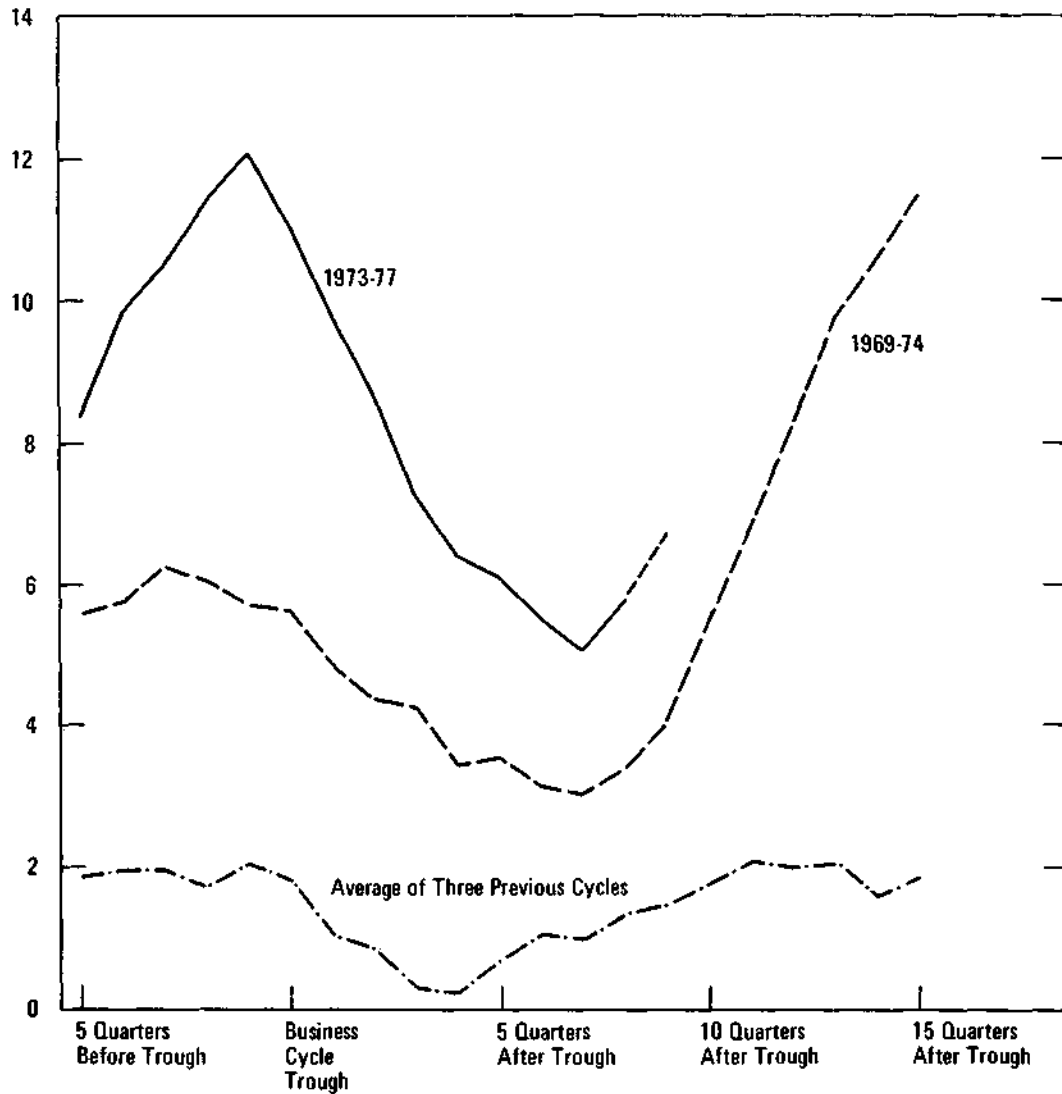
Some analysts have argued that the answer to the puzzle is that the volume of unused resources is really much smaller than conventional measures indicate, particularly with respect to unemployment. It is argued that the current 7 percent rate is not at all comparable with 7 percent unemployment in earlier years.

Almost all experts agree that there is some validity to this argument. One recent analysis of unemployment trends estimated that an unemployment rate equivalent to 4.0 percent in 1955 is now 4.9 percent, an estimate based both on rising

Figure 2

Inflation in Recession and Recovery

(Percent Change from a Year Earlier in Quarterly Average Consumer Price Index)



SOURCES: U.S. Department of Labor, Bureau of Labor Statistics. Second quarter 1977 partly estimated by CBO.

NOTES: The latest value plotted for 1973-77 is an estimate for the second quarter of 1977.

The business cycle trough is the last quarter of recession, as designated by the National Bureau of Economic Research.

"Average of three previous cycles" is an average of the recession-recovery periods 1953-58, 1957-62, and 1959-64.

proportions in the labor force of certain groups (teenagers and adult women) with high job turnover and on the increase in the unemployment rate of young persons relative to that of adults. Other factors more difficult to quantify may have further increased the unemployment rate equivalent to 4 percent in the 1950s--closer to 5.5 percent, according to the same analysis. ^{2/} Among these factors are the increased coverage and duration of unemployment benefits and the growth of other sources of income support for some of the unemployed, such as welfare and food stamps, all of which make job search less urgent during spells of unemployment. If the estimate of 5.5 percent is accurate--a matter of vigorous dispute among experts--then changes in the labor market account for about half of the difference between today's unemployment rate and the 4 percent that prevailed in the mid-1950s. Correcting for these changes would bring the current unemployment rate much closer to the average of earlier recoveries, but still somewhat less favorable.

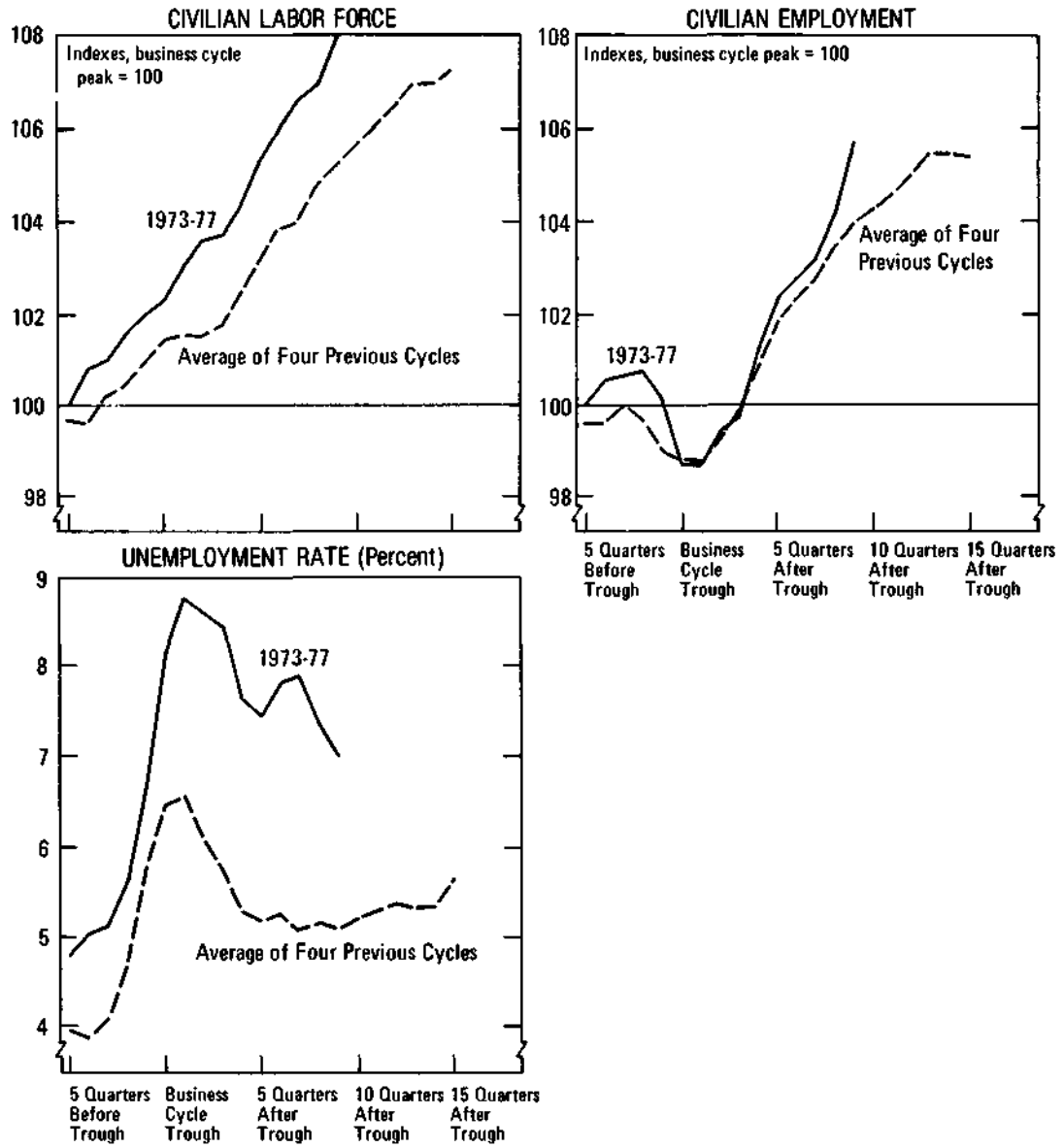
The less favorable unemployment situation is due not only to recent output movements--an exceptionally deep recession followed by an average rate of recovery--but also to a number of special labor market trends. One of them is an extremely rapid growth in the labor force, shown in Figure 3. During the 1973-1977 downturn and expansion, the civilian labor force grew by 7.4 million persons, an annual growth rate of 2.3 percent. In earlier recession-recovery periods, the comparable growth rate was only 1.5 percent. Adult females accounted for 4.4 million of the total gain, partly because the adult population is growing rapidly and partly because the proportion of adult females who enter the labor force continues to rise from year to year.

It is not simply among adult women that the labor market remains slack in comparison with previous recoveries. The unemployment rate for adult women is currently 6.9 percent, well above the average of 5 percent at the same stage of earlier recoveries; but the unemployment rate among adult men is 5.1 percent currently, with 4 percent for the average of four previous recoveries. The rate for teenagers is 18.1

^{2/} Council of Economic Advisers, Economic Report of the President (January 1977), p. 51.

Figure 3

Labor Force, Employment, and Unemployment



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

NOTES: The latest values plotted for 1973-77 are for the second quarter of 1977.

The business cycle peak is the last quarter of expansion preceding the recession, and the business cycle trough is the last quarter of the recession, as designated by the National Bureau of Economic Research.

percent, compared with an earlier average of 14 percent. Nonwhite teenagers--the group having by far the highest unemployment--have an unemployment rate of 38.1 percent, compared with about 28 percent in previous recoveries.

Growth in jobs during the current recession-recovery has been slightly above the average of earlier periods (see Figure 3), somewhat mitigating the impact on unemployment of rapid growth in the labor force. This maintenance of job growth in spite of the output gap that developed during the recession is another way of saying that the growth in productivity, or output per worker, has been slower in the 1970s than it was during the two previous decades. ^{3/} Possibly there is a relationship between the rapid growth in the labor force, including an increasing proportion of new entrants and inexperienced workers, and the relatively slow growth in productivity.

Outside of the labor market, measures of capacity utilization (utilization of plant and equipment) in manufacturing are currently roughly comparable with earlier expansions. The latest utilization rate, according to both the Bureau of Economic Analysis and the Federal Reserve Board indexes, is 83 percent, a rate below peaks reached in earlier expansions but at the same time a rate typical of the third year of upswings following recessions.

Much of the contrast between what these capacity utilization measures show and what unemployment rates show is a contrast between the behavior of the labor force and the behavior of industrial capacity. While the labor force has been growing exceptionally rapidly, expansion of industrial capacity has been lagging behind earlier growth rates and has thus limited the amount of excess capacity.

^{3/} For a discussion of the slowing of productivity growth and its causes, see the CBO Report, Sustaining a Balanced Expansion (August 1976), Chapter 4.

The contrast between rapid labor force growth and slow capacity growth is troublesome, for it means that, as the economy approaches full utilization of capacity, bottlenecks may arise while unemployment of labor remains substantial. At the present time, however, the evidence overall suggests that the economy continues to be characterized by a large volume of unused resources. The most comprehensive measure of unused resources, based on the stock of plant and equipment as well as on the labor force, is the gap between actual and potential GNP depicted in Figure 1. This measure indicates a contrast with earlier recoveries as well as a continuing margin below earlier peaks.

PROSPECTS FOR IMPROVEMENT

Over the next year and a half, the output gap seems likely to narrow gradually and the rate of inflation to persist in the neighborhood of 4.5 to 6.5 percent. Chapter II of this report presents these projections after a review of recent developments and major factors affecting demands. The prospect is, thus, for some improvement in the economic situation, but nevertheless for a continuation of relatively high inflation even without excess demand.

The principal explanation for this phenomenon, offered in the third chapter of this report, is the strong momentum which inflation develops once it is anticipated as a continuing feature of economic life. During the last decade, inflation has become strongly embedded in a great many areas of the economy. The rapid spread of cost-of-living adjustments in labor contracts, the reflection of inflationary expectations in a broad spectrum of interest rates, and the indexation of major federal entitlement programs are a few important examples. These developments, intended as defenses against the effects of inflation, have also made the reduction of inflation a long and difficult process. Even though the current demand situation is not driving prices up, the outlook is for a continuation of recent inflation rates.

The CBO forecast, presented later in this chapter, is not substantially different from the economic assumptions underlying the First Concurrent Resolution for the Fiscal Year 1978 Budget. CBO forecasts moderate economic expansion during the next six quarters (through calendar year 1978), with the unemployment rate in the 5.9 to 6.9 percent range by the end of 1978. The rise in prices (as measured by the CPI) is expected to moderate from the advanced rates of the first half of this year (about 8.5 percent), with inflation rates in the 4.5 to 6.5 percent range through 1978.

The midpoint of this forecast range suggests gradual progress in reducing unemployment but little improvement in the underlying rate of inflation (now about 6 percent). This is because inflationary pressures, once started, tend to be persistent and respond very gradually to a moderation in economic growth. As explained in the third chapter of this report, there does not appear to be any budget or incomes policy that could quickly achieve a reduction in the inflation rate without either an unacceptable loss in output and rise in unemployment or an eventual sacrifice of efficiency and equity.

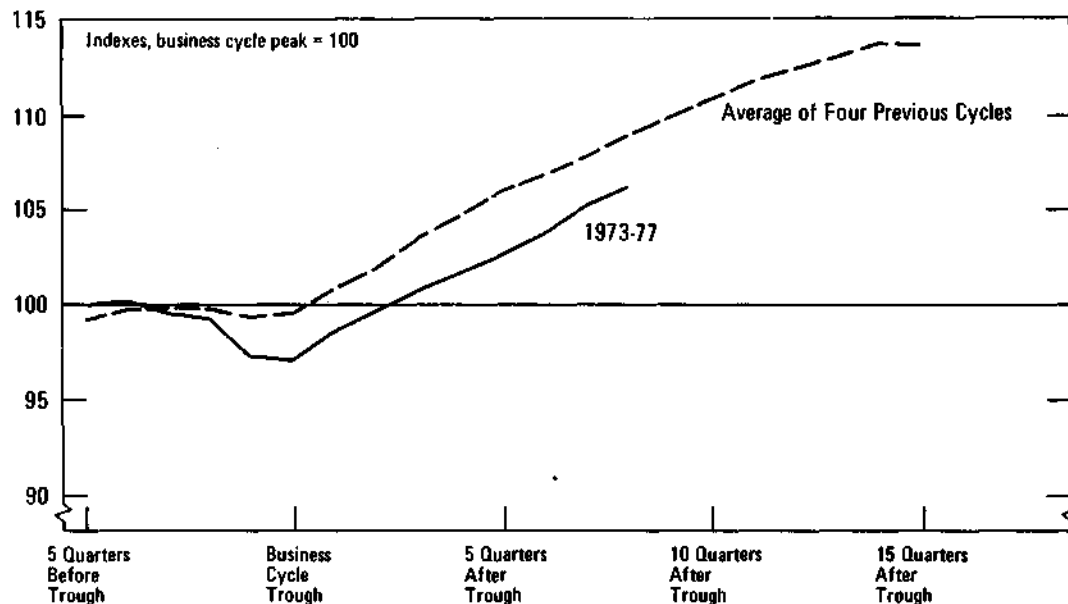
There now appears to be more than the usual degree of uncertainty in the economic outlook. If economic growth appears to be proceeding at the lower end of this forecast range, with little or no improvement in the unemployment rate, the Congress might want to stimulate the economy. If economic growth continues at the high end of the forecast range, however--say, at 5 percent or more--additional stimulative policies might begin to add to inflationary pressures by the end of 1978. In view of the current uncertainty, a policy decision based on either end of the forecast range appears to be premature now.

The last section in this chapter identifies some of the sources of uncertainty in the economic outlook as well as the economic indicators that should be monitored to see if and where we are going off track. This chapter begins with a review of current and prospective demands by sector.

CURRENT TRENDS IN DEMANDS

Despite the gains in economic activity during the last half year, there is little doubt that the overall economic situation is worse than experienced at this stage in earlier recoveries. Total demands remain well below potential output, and the unemployment rate is still exceptionally high. A useful measure of the state of demand is total final sales of goods and services in constant (1972) dollars. Equal to GNP minus inventory change, this measure removes much of the quarter-to-quarter volatility of GNP growth. Compared to earlier recoveries, as Figure 4 shows, this comprehensive measure of demand remains weak. During the 1973-1975 recession it fell much more than in earlier recessions, while since the bottom of the recession it has risen at about its average rate during recovery periods. The gap between this business cycle and the average of earlier cycles which opened up during the recession, consequently, has not yet been closed.

Figure 4
Real Final Sales



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

NOTES: The latest values plotted for 1973-77 are for the first quarter of 1977.

The business cycle peak is the last quarter of expansion preceding the recession, and the business cycle trough is the last quarter of the recession, as designated by the National Bureau of Economic Research.

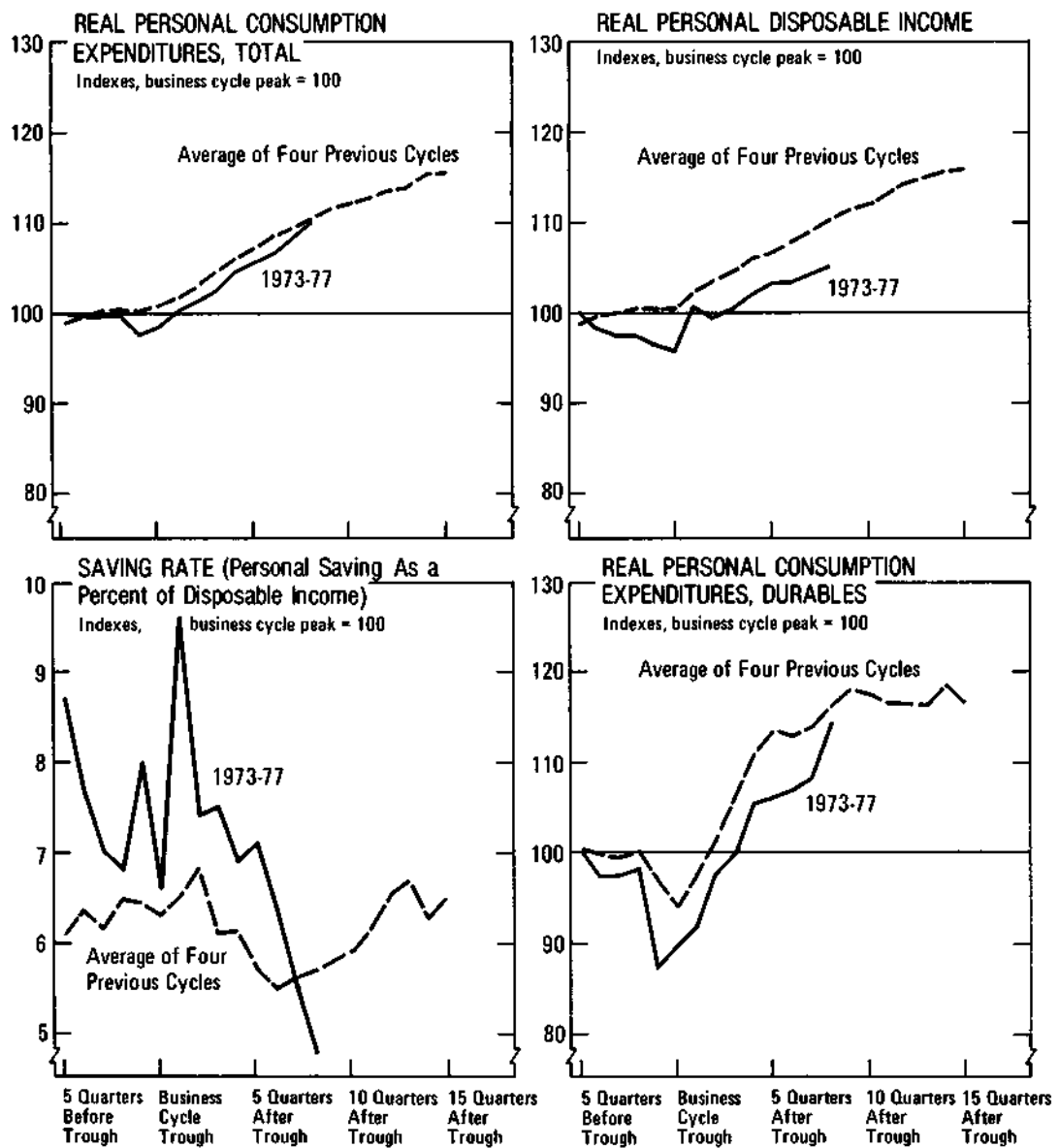
The pace of economic activity in the first half of this year was bolstered by developments that generally have only temporary effects. The rebound from the auto strike that occurred in the fall of 1976 and the decline in the personal saving rate are not likely to be sustained for long. Barring unforeseen strength in final demands, the inventory buildup can be expected to be completed during the second quarter or shortly thereafter. If so, inventory investment is not likely to add significantly to economic growth for the remainder of the year. At the present time there appears to be little prospect for other sectors of demand providing enough stimulus to maintain the growth rate of the first half of this year.

Consumption

Consumer expenditures have grown at a relatively rapid pace since the recession trough, contributing somewhat more than usual to the recovery in real GNP. In fact, the gap between consumer spending in this business cycle and earlier recoveries--caused by the unusually severe decline during the recession--has been narrowing, especially in recent quarters (see Figure 5, upper left graph). The growth in consumer spending has been sustained, however, to a large extent by a decline in the saving rate (see lower left graph of Figure 5). Except for the initial burst produced by the 1975 rebate, the growth in real disposable income since the trough has been in line with previous cyclical experience. Real incomes have not rebounded to the prerecession trend line. By the first quarter of 1977 real disposable income, shown in the upper right graph of Figure 5, was 5.2 percent above the prerecession peak, compared to the average of about 10 percent in comparable periods of previous expansions.

The outlook for consumer spending for the next few quarters is for slower growth than the rapid 7 percent pace (1972 dollars) experienced last winter. Large increases in output and employment since last fall have provided significant gains in income that favor continued growth in consumption. The declining saving rate reached a low 4.8 percent in the first quarter of this year, however, which suggests the spending pace may not be sustainable. Among special factors accounting for the low saving rate during the winter were

Figure 5
Consumption Spending



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

NOTES: The latest value plotted for 1973-77 is for the first quarter of 1977.

The business cycle peak is the last quarter of expansion preceding the recession, and the business cycle trough is the last quarter of the recession, as designated by the National Bureau of Economic Research.

the post-strike rebound in auto sales, a sharp increase in fuel consumption because of cold weather, and a speedup in estate tax payments in the first quarter resulting from earlier legislative changes.

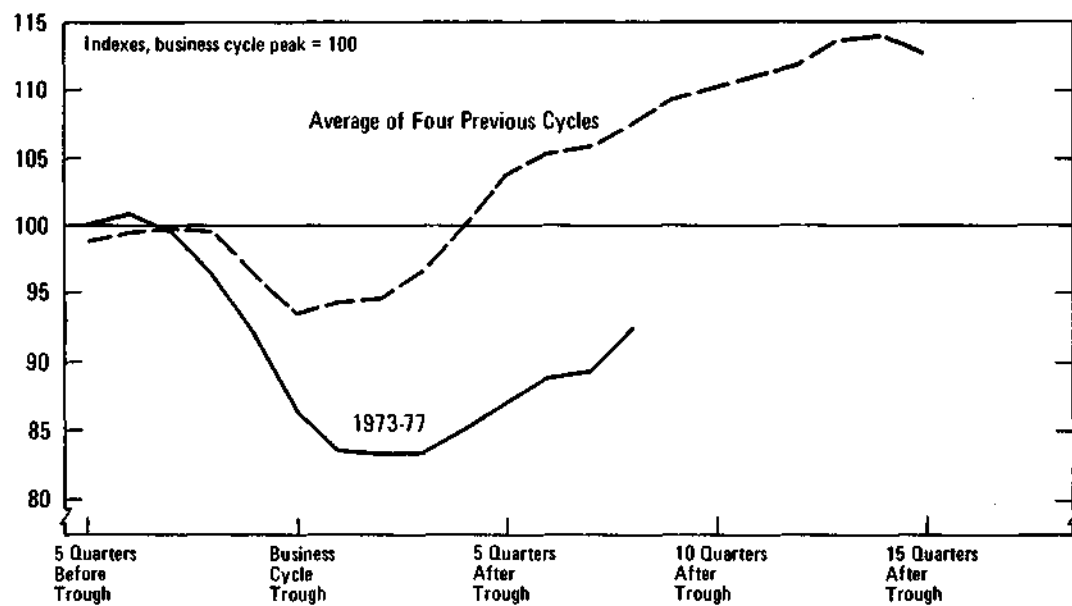
The Michigan Survey Research Center survey of consumer attitudes, taken in May 1977, also suggests that growth in consumer spending will moderate somewhat from the advanced first-quarter rate. The survey found its consumer sentiment index to be about unchanged from the improved level reached nine months earlier. Moreover, prior to May the improved level of confidence was maintained by optimistic expectations, while more recently confidence depended more on favorable evaluations of current conditions than on expectations of further improvement.

Business Fixed Investment

Business spending for capital goods continues to provide less stimulus in this expansion than in previous recoveries. As shown in Figure 6, the decline in real spending was larger and longer in the last recession than in previous cycles. Furthermore the growth of this sector since the recession trough has lagged behind previous experience. In the first quarter of 1977 real spending for nonresidential fixed investment was still 8.4 percent below its previous peak, twelve quarters earlier. Both equipment and structures have lagged in this recovery but, perhaps because of previous over-building and the extreme financial stringency that preceded the recession, nonresidential construction has been particularly depressed.

Advance indicators of business capital spending suggest continuation of growth above trend but offer little hope for a significant acceleration in investment for the remainder of this year. The latest Commerce Department survey of business capital spending plans, conducted in late April and May, indicates that businesses plan to increase their investment spending by 12.3 percent in the current calendar year. Assuming no change from last year in price behavior, the survey implies a gain in real capital spending of about 7.5 percent in 1977. While this rate of growth exceeds the expected growth in overall real GNP, it falls far short of rates of growth of investment during earlier capital spending boom periods.

Figure 6
Nonresidential Fixed Investment



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

NOTES: The latest values plotted for 1973-77 are for the first quarter of 1977.

The business cycle peak is the last quarter of expansion preceding the recession, and the business cycle trough is the last quarter of the recession, as designated by the National Bureau of Economic Research.

An encouraging aspect of the Commerce survey is that, in almost every major industry grouping, business firms are planning faster growth than in the previous year. A sound basis for continued expansion in the next few quarters is also indicated by the growing backlog of orders for nondefense capital goods and machine tools and by the capital appropriations of the 1,000 largest manufacturers. There is also some evidence that nonresidential construction may be picking up. None of these indicators point, however, to an investment boom such as experienced in some past periods.

One reason that a full-fledged capital boom has not developed is the continuing gap between output and capacity in many industries. Another reason is that the investment boom of the 1960s, strongest of the last 30 years, was boosted by two special stimulative policies: liberalized depreciation guidelines and the introduction of the investment tax credit. No comparable change in investment incentives has taken place recently.

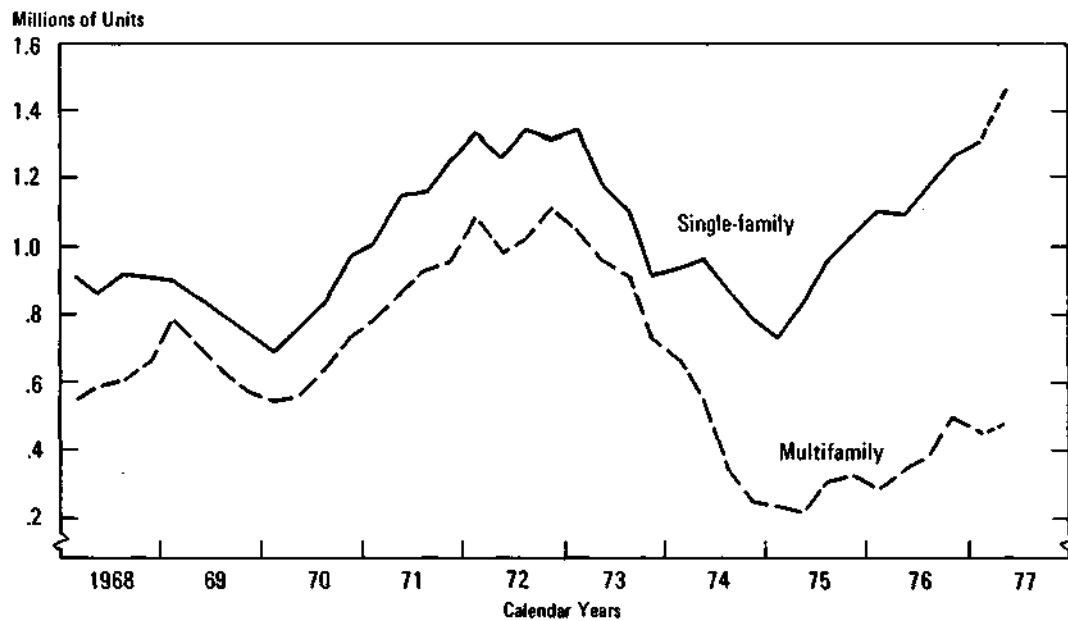
Housing

Residential construction continues to be a source of strength in the current economic expansion. Real outlays increased by 23 percent in 1976. By the fourth quarter of the year, private housing starts reached a 1.77 million unit annual rate, about 800,000 above the 1975 trough. Extremely cold weather delayed residential construction for a time last winter, but activity bounced back in the spring and has since remained strong, as shown in Figure 7.

The recent strength in housing construction has been concentrated very largely in the single-family sector, which has reached new highs recently. Multifamily housing construction was hit very hard in the last recession by excessive construction prior to the recession and by a financial crisis affecting the availability of construction loans. While there has been some growth in the multifamily construction sector--particularly in the second half of 1976 when processing of federal subsidies was accelerated--activity remains far below earlier peaks (see Figure 7).

The fundamental problem with multifamily housing construction seems to be profitability. Despite increased demand for rental space, increases in construction costs and operating

Figure 7
Housing Starts



SOURCE: U.S. Department of Commerce, Bureau of the Census. Second quarter 1977 partly estimated by CBO.

costs on completed units have outrun rents in recent years. In some areas, actual or threatened rent controls may also be retarding activity.

There is reason to believe that individuals who might otherwise rent have a strong interest in single-family homes as a hedge against inflation. In recent years, single-family houses have been one of the few assets that are readily available to many consumers and whose market value has increased steadily in real terms. While homebuying as an inflation hedge may stimulate demand, it carries the danger of promoting a speculative boom followed by a decline--a pattern suggested by the California housing market in recent months.

The major determinants of construction in the housing sector remain favorable to high levels of activity. Rental vacancies have declined sharply for three quarters. While

slowing recently, financial flows to thrift institutions have been strong for some time, and, even if short term interest rates rise moderately as projected, thrift institutions should have ample liquidity for at least the next few quarters. Meanwhile, sizable real personal income gains in combination with demographic pressures should ensure sufficient housing demand.

State and Local Purchases

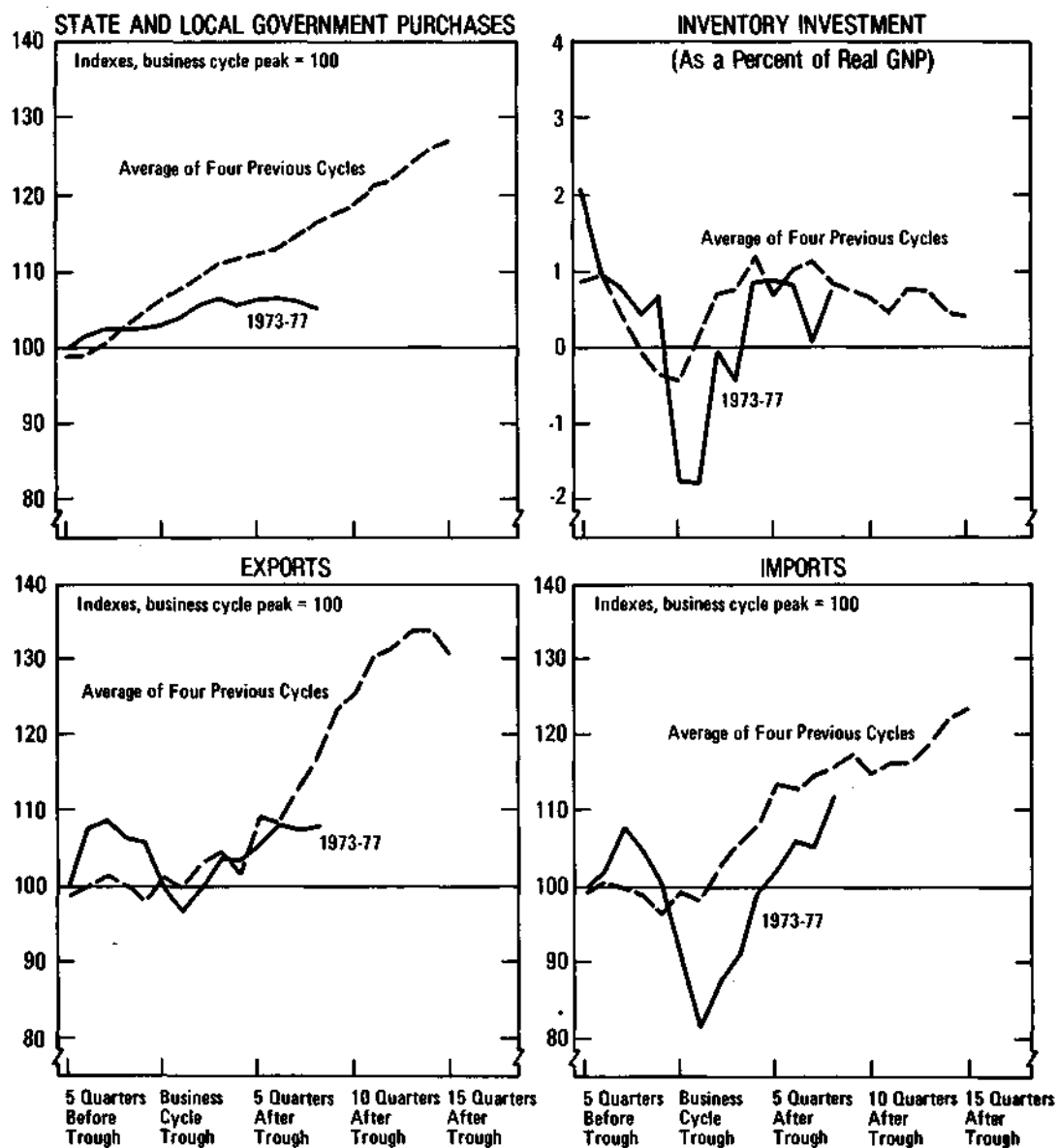
State and local government purchases, in constant dollars, have not been a source of strength recently. As shown in the upper left graph of Figure 8, this sector was hit hard by recession, contrary to past experience, and has grown much less than usual in the current economic expansion. In 1975 state and local purchases increased 2.6 percent in real terms, with much of the gain due to a huge increase in federal grants largely for public service employment. State and local spending in 1972 dollars has leveled off since then, showing no growth from the fourth quarter of 1975 to the fourth quarter of 1976. In the first quarter of this year, real purchases by state and local governments recorded a second consecutive quarterly decrease.

The decline in spending by this sector last winter appears to have been partly due to temporary factors, such as the effect of cold weather on construction activity. But the growth trend in state and local spending has also been reduced by more permanent developments. Demand for local public services has eased because of reduced growth in the school age population. The slowdown also reflects increased caution on the part of public officials and voters brought about by the severe recession and the financial problems of New York and other cities, mostly in the Northeast. These developments are expected to keep spending growth rates moderate over the next 18 months, although a pickup in federal grants for public service jobs is expected to boost growth in the near term.

State and local government revenues have grown much more rapidly than spending since the recovery began. As a result, this sector is now showing large surpluses even in operational activities (excluding trust funds). This has helped these governments reduce debt burdens and improve

Figure 8

Selected Components of Real GNP



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

NOTES: The latest values plotted for 1973-77 are for the first quarter of 1977.

The business cycle peak is the last quarter of expansion preceding the recession, and the business cycle trough is the last quarter of the recession, as designated by the National Bureau of Economic Research.

their liquidity positions. If the accumulation of surpluses in the operational accounts should persist for some time, slower tax increases or possibly some increase in the pace of spending could result.

Inventory Investment

Inventory investment has fluctuated widely during the upswing of the last two years. The record inventory liquidation of the past recession did not come to an end until the first quarter of 1976, when GNP growth jumped ahead as a result of the shift toward accumulation. After holding constant for two quarters, real inventory investment then dropped to nearly zero during the fourth quarter, in response to the auto strike and weak final demands early in the fall (see upper right graph of Figure 8). The first quarter of 1977 brought a sharp rebound, following a pickup in final sales in the last months of 1976.

Book value data suggest continued inventory building. Inventory/sales ratios indicate that stocks may be adequate at the trade level, except perhaps for some types of autos, but are still relatively low in the manufacturing sector. It seems likely, therefore, that inventory investment will remain strong in the second quarter. Barring unforeseen developments in final demands, this latest adjustment in inventories should soon be completed, and inventory investment is projected at a moderately high level in the second half of the year and in 1978.

Foreign Sector

A positive net export balance, characteristic of the U.S. economy over much of the past 25 years, does not appear to be likely in the immediate future. Following net export balances of more than \$7 billion in 1973 and 1974, the U.S. recession, generally sharper than the decline abroad, caused imports to fall while exports increased slightly and generated a net export surplus of \$20.5 billion in 1975 (all in current dollars). In the next year, import growth exceeded that of exports, leading to a decline in the surplus to \$6.6 billion.

The growth of imports in 1976 reflected increased purchases of foreign oil and the expanding U.S. economy. Export growth was held down by the relatively modest economic recoveries among our major trading partners. As a result of these developments and perhaps the earlier appreciation of the U.S. dollar in foreign exchange markets, the net export position of the U.S. continued to deteriorate, reaching a \$6.2 billion deficit in the first quarter of 1977. (Exports and imports are shown in real terms in the lower two graphs of Figure 8.)

The rapid growth of oil imports is expected to slow somewhat as oil from Alaskan fields begins to have an influence toward the end of this year. Trade surpluses for agricultural commodities and manufactured goods have weakened recently, however, and are not likely to pick up, if forecasts of good world crops and continued moderate growth abroad are realized. Countering the deficit for merchandise flows is a surplus on the services account that measures income from U.S. foreign investment and travel and transportation services. Overall, the outlook for the next few quarters is that net exports of goods and services will not provide notable economic stimulus.

PROJECTIONS FOR 1977 AND 1978

Economic activity, as measured by real GNP growth, has increased on average at a 5.9 percent rate since the recession trough in the first quarter of 1975. The record inventory adjustment in this cycle has accounted for an unusually large part of this growth; gains in final sales (in 1972 dollars) have averaged 4.6 percent over this period.

The CBO forecast for the remainder of 1977 and 1978 shows final sales continuing to grow near the average for this expansion. Gains in total output are expected to be well below the recent pace of 7 percent, however, and also somewhat below the average for this expansion because no further acceleration in inventory investment is anticipated in the near term.

Taking into consideration recent trends in activity, the CBO forecast, presented in Table 1, has the following main characteristics:

- o Real GNP will grow at a 5.0 to 6.0 percent rate during 1977 and 3.6 to 5.1 percent during 1978.
- o The unemployment rate will decline gradually from 7 percent in the spring of this year to a 5.9 to 6.9 percent range by the last quarter of 1978.
- o The inflation rate, as measured by the Consumer Price Index, is expected to be in the 6.0 to 7.0 percent range in 1977, due in part to food price increases that have already taken place, and then to fall to a 4.5 to 6.5 percent range during and through the end of 1978.

Although CBO forecasts a slowdown in GNP growth, the projection is optimistic when compared to historical experience. If growth proceeds at the midpoint of the forecast range, the gap between the current recovery and the average of earlier expansions will disappear. Of course, this is partly due to the projected length of the current expansion. At the end of 1978, when the forecast ends, the expansion phase of this cycle will be 15 quarters old. By comparison, three of the last four expansions had come to an end before 15 quarters.

Despite the projected gap between actual (projected) and potential output, the outlook is for little change in the underlying rate of inflation. The CBO forecast for price increases in the 4.5 to 6.5 percent range during 1978, shown in Table 1, does imply, however, a substantial reduction in the inflation rate from that experienced in the first half of this year with its rapid climb in food prices.

The forecast assumes that increases in retail food prices will settle down to a 5 to 6 percent rate of increase over the forecast period. By contrast, fuel price increases are expected to remain at the more advanced rates experienced recently, averaging 10 to 12 percent at wholesale over the forecast period. Advance indicators such as crude materials prices, labor market pressures, and inventory levels in relation to

TABLE 1. ECONOMIC PROJECTIONS BASED ON CURRENT POLICY, CALENDAR YEARS 1977-1978

	L e v e l s			Rates of Change (Percent)	
	Actual 1976:4	Projected		1976:4 to 1977:4	1977:4 to 1978:4
		1977:4	1978:4		
GNP (Billions of Current Dollars)	1,745	1,799	1,940 to 1,980	2,130 to 2,190	11.0 to 13.0 8.5 to 11.5
GNP (Billions of 1972 Dollars)	1,280	1,302	1,345 to 1,360	1,395 to 1,425	5.0 to 6.0 3.6 to 5.1
General Price Index (GNP Deflator, 1972 = 100)	136	138	144 to 146	152 to 155	6.0 to 7.0 4.5 to 6.5
Consumer Price Index (1967 = 100)	174	177	184 to 186	193 to 197	6.0 to 7.0 4.5 to 6.5
Unemployment Rate (Percentage Points)	7.9	7.4	6.6 to 7.2	5.9 to 6.9	-- --

sales suggest that other consumer prices will rise at a 5.5 to 6 percent rate later this year, 1/ and CBO is projecting a slightly lower rate of advance later in 1978. Chapter III analyzes broadly the causes of the present high rate of inflation and prospects for reducing it.

In regard to stabilization policy the projection assumes, in accordance with recent trends, that federal spending will fall a few billion dollars short of the Congressional targets of \$409.2 billion in fiscal year 1977 and \$461.0 billion in fiscal year 1978. Otherwise, the projection assumes current budget policy, with no provision for proposals not in the First Concurrent Resolution on the Budget for Fiscal Year 1978. The fiscal stimulus enacted by the Congress last spring--the increase in public service employment, accelerated public works, the reduction in personal income taxes, and job credits, etc.--is included and has a significant effect on projected growth.

The Administration's proposal for a national energy program is not included in the forecast. A CBO analysis indicates that it would have very little impact on economic growth through 1978. 2/ Also excluded from the forecast is the Administration's proposed financing for social security. This program would involve some shifting of funds from general revenue to social security during 1978, but it would have minimal impact on net revenues through the forecast period and little impact on overall economic activity.

The projection assumes monetary growth at the high end of the Federal Reserve target range, with a gradual rise in short

1/ The relationship between consumer prices and advance indicators is described in a forthcoming CBO technical paper, Early Warnings of Inflation.

2/ For a discussion of the short-run macroeconomic impact of this program through 1980, see CBO Staff Working Paper, President Carter's Energy Proposals: A Perspective (June 1977), Chapter IX, pp. 104-114.

term interest rates--about 1 percentage point for Treasury bill rates over the next six quarters. Monetary policy is discussed further in the section below on forecast uncertainty.

UNCERTAINTIES IN THE OUTLOOK FOR REAL GROWTH

Any forecast extending a year and a half into the future is subject to a great deal of uncertainty. With six months of the year already passed, there is reason to be somewhat more confident of the outlook for 1977 than for 1978. But the record of economic forecasts suggests we must not attach any certainty even to the forecast ranges, because the probability of activity being outside the ranges is not negligible. Risks stem both from the principal policy assumptions and from assumptions concerning behavioral characteristics of some sectors.

On the policy side, the size of the federal spending shortfall--the gap between budget estimates and actual federal spending--cannot easily be predicted because its sources are not fully understood. CBO's projection assumes no further widening of the gap between estimated outlays in the Congressional budget resolution and actual spending, but it is possible that there will actually be a larger shortfall, which would tend to reduce projected economic growth rates. The mid-session budget review by the Administration, however, projected federal spending in 1978 slightly higher than the first concurrent resolution, with the President's energy proposals accounting for much of the difference.

One of the most critical assumptions of the forecast has to do with monetary policy and the behavior of financial markets. The forecast assumes that M2, currency plus demand and time deposits at commercial banks, will grow at the upper end of the target range recently announced by the Federal Reserve--7 to 9.5 percent--and that short-term interest rates will increase by only 1 percentage point over the next

six quarters. With current dollar GNP growth projected in the 8.5 to 11.5 percent range, the forecast assumes M2 velocity (the ratio of current dollar GNP to M2) 3/ can continue to rise and that such an increase would not be inconsistent with a modest increase in interest rates--an assumption that is not out of line with the experience of the past few years.

These financial assumptions involve two related risks, however. First, it is possible that the Federal Reserve will hold the growth of money aggregates below the upper end of the target ranges or that it will lower its targets from time to time, as suggested by the chairman of the Federal Reserve Board in recent testimony. The second risk involves the possibility that monetary velocity will return to historical patterns. Slower growth in velocity, combined with moderate expansion of money aggregates, would lead to much sharper increases in interest rates, with real output and, possibly, prices coming in below projected levels.

One of the key uncertainties about private demands is the saving rate. The projection of consumer spending behavior assumes the saving rate will turn up from the very low value recorded in the first quarter of this year, but remain in the 5 to 6 percent range throughout the forecast period. Even 5 to 6 percent is substantially below the rates recorded in recent years, however, and, therefore, there appears to be some risk that the forecast of consumer behavior is too optimistic.

Another key uncertainty is the future of business fixed investment. CBO's projection of investment spending--only slightly more optimistic than the Commerce survey--may be exceeded, if capacity utilization rates move up faster than expected and gains in corporate liquidity remain strong. Those with a more optimistic view of 1978 real growth prospects than the CBO projection are counting on a major investment boom to develop some time late in 1977.

3/ See CBO Report, Sustaining A Balanced Expansion (August 3, 1976), pp. 32-35, for a more detailed discussion of the velocity of money.

The CBO forecast of moderate growth in economic activity over the next six quarters could thus prove either too high or too low. What would be the early signs that the economy is not on the projected track? One signal would be a significant revision, either up or down, in business capital spending plans reported to the Commerce Department in their August survey (to be released in early September). Such a development could significantly change the outlook for real growth. For residential investment, future activity is signalled by mortgage market developments and housing starts.

In the consumption sector, an indicator would be a sustained weakness or acceleration in purchases of durable goods (see lower right graph of Figure 5). Auto purchases in particular are projected to stay in the range of 11 to 11.5 million units throughout the projection period, and a significantly higher or lower sales rate would also affect the outlook.

Stronger growth than projected for a few quarters would not be cause for alarm because margins of unused capacity exist, and there would be sufficient time to devise an appropriate policy response before inflation effects became significant. But if output begins to weaken below the current forecast and the assumptions underlying the first concurrent resolution, the Congress may wish to consider policies to stimulate the economy.

Earlier this year, when output fell significantly below the assumptions underlying the Second Concurrent Resolution for Fiscal Year 1977, the Congress enacted a package of business and personal tax cuts and increases in spending in public employment, public works, and revenue sharing. While one element of the package proposed by the Administration, a rebate on 1976 income taxes, was not enacted, other programs are adding to demands in 1977 and 1978. Projected growth in 1978 would be significantly weaker without these programs.

Broad agreement exists that inflation is harmful, and that it is likely to persist. This chapter discusses these two comfortless judgments. To explain the first, it begins with a description of some characteristic effects of inflation. To explain the second--the persistence of inflation--it discusses the inflation process. The chapter concludes with some anti-inflation policy options.

THE MEANING OF INFLATION

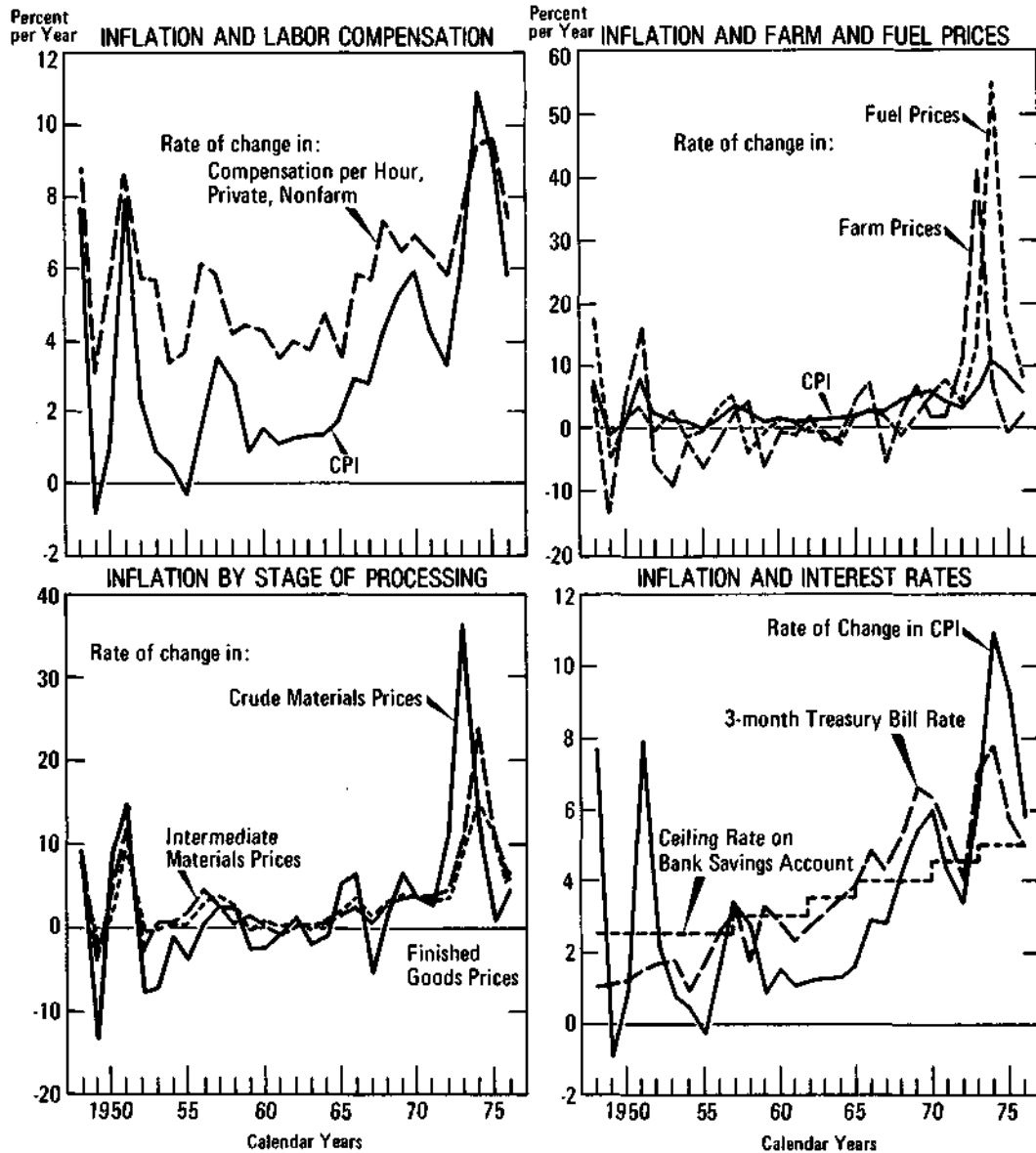
Inflation is often taken to mean a continuing rise in the general price level. A difficulty with this definition is that it glosses over a fundamental characteristic of inflation: inflation changes relative prices. 1/ That is, if a quart of milk costs twice as much as a loaf of bread before inflation, it is unlikely to cost exactly twice as much during or immediately after inflation. If a week's wages buy a television set before inflation, there is no assurance that they will do so afterwards.

In fact, inflation without changes in relative prices has never occurred; if it did, no one would mind very much. If pensions, wages, salaries, rent, profits, and the prices of all goods and services increased at the same rate, it would be a nuisance, but no one would be badly harmed.

Public concern with inflation is based in large part on its effects on the structure of relative prices and incomes. Some examples are given in Figure 9. The upper left graph compares the annual percent change in the Consumer Price

1/ D. R. Vining, Jr., and T. C. Elwertowski, "The Relationship Between Relative Prices and the General Price Level," American Economic Review (September 1976), pp. 699-708.

Figure 9
Inflation, Relative Prices, and Incomes



SOURCES: U.S. Department of Labor, Bureau of Labor Statistics for price and compensation data. Farm prices, fuel prices, and prices by stage of processing are components of the Wholesale Price Index. U.S. Treasury Department for Treasury bill rate. Federal Reserve Board for ceiling rate on bank savings accounts.

Index (CPI) with the annual percent change in average hourly (nonfarm) labor compensation. Because output per worker grows over time, compensation tends to rise faster than prices. As may be seen in the figure, however, the margin of compensation over prices narrows during accelerating inflation. Indeed, in 1974 under the combined effects of inflation and recession, the CPI rose faster than compensation, and real earnings--the purchasing power of an hour's work--declined.

The behavior of the CPI and the prices of two specific types of goods, agricultural products and fuel, are compared in the upper right graph. Differences between the rate of change in the CPI and the rate of change in farm and fuel prices have tended to increase during periods of accelerating inflation. Moreover, while rising farm and fuel prices in 1972-1973 and 1973-1974, respectively, received much publicity, farm prices increased less than the overall CPI in 1967-1968, 1970-1971 and 1974-1976. Similarly, fuel was becoming relatively cheaper during most of the period from 1958 through 1970.

The lower left graph depicts variations in the rates of change of crude and intermediate materials and finished goods prices. Price changes among these three broad categories appear most disparate during periods of increasing inflation. All three charts show the tendency for all prices to increase during inflation; but some prices increase much faster than others, with some prices leading the average and others following with a lag.

WHY RELATIVE PRICE CHANGES OCCUR DURING INFLATION

The relation between inflation and changes in relative prices is one in which causation seems to run both ways: changes in relative prices are caused by inflation and inflation is caused by increases in the absolute (and relative) prices of individual goods and services.

Inflation causes changes in relative prices because most individual prices are not changed either continuously or simultaneously. Over the past five calendar years, the annual rate of inflation in the United States, as measured by the

CPI, has been 3.3, 6.2, 11.0, 9.1 and 5.8 percent. For relative prices to have remained unchanged, all prices would have had to rise continuously or in simultaneous steps at the same rate as the average. The facts are otherwise. Prices that change day-to-day or in lockstep with others are the exception; for example, open-market interest rates, prices of equity shares, and some wholesale commodity prices. The lower right hand graph of Figure 9 provides an example of one price that in recent years has responded quickly to changes in the rate of inflation--the three-month Treasury bill (interest) rate--and an example of one that responds more slowly--the maximum interest rate paid on regular savings accounts at federally insured commercial banks. From 1965 to the present, the ceiling rate on savings accounts was changed only twice; over most of this period the rate of inflation exceeded the interest ceiling.

Another infrequently adjusted price is the wage rate. Most wages are adjusted for inflation no more than once a year. Of the 10 million workers covered by major collective bargaining agreements (those covering more than 1,000 employees), fewer than 25 percent receive cost-of-living adjustments more frequently than once a year. In contrast, income tax rates rise automatically with current dollar income because of the progressive rate structure. Worse yet, some pensions and annuities are permanently fixed in dollar amount and thus decline in real value during inflation. In sum, because all prices do not increase at the same time or at the same rate, inflation changes relative prices and the distribution of real income.

An increase in an individual price also pushes up the general level of prices. The large absolute (and relative) increase in the price of energy is a commonly cited, recent example. Higher prices for petroleum and related increases in prices of electricity, natural gas, and coal contributed to a higher price level directly and indirectly by raising the cost of producing almost everything else. As was observed in late 1973 and 1974, the immediate effect of pervasively higher prices for goods and services accompanied by slowly changing wages and salaries was that consumer spending for some goods

was reduced. Reductions in spending lower output and raise unemployment. 2/ Monetary and fiscal policies may become more expansionary in response to higher unemployment rates. These policies may reduce unemployment, but they are also apt to perpetuate a high rate of inflation. Thus, individual price increases, through their effects on costs, unemployment, and government policy, can lead to inflation.

THE CAUSES OF INFLATION

Prices of individual goods and services are jointly determined by buyers and sellers. At each possible price, there is some quantity of the good that suppliers are willing to sell and that purchasers are willing to buy. The market price will tend toward that price at which desired sales are equal to desired purchases. Market prices are raised by developments that reduce the quantity offered for sale at any particular price (a fall in supply) or that increase the quantity buyers offer to purchase at any particular price (an increase in demand). When speaking of the the entire economy, therefore, it is convenient to classify the causes of a higher general price level into those that increase aggregate demand and those that decrease aggregate supply.

Aggregate demand may be increased by an expansionary monetary policy, a tax cut, an increase in government spending, a rise in the propensity to consume, an investment boom, or growing foreign demand for U.S. goods. Aggregate supply may be reduced by crop failures; the formation of cartels to restrict supply and raise price; restrictions on imports such as tariffs, quotas, and "orderly marketing agreements"; higher minimum wage laws; and government regulations and private agreements that interfere with an efficient use of resources.

2/ Higher energy prices also signal an increasing scarcity of energy and provide incentives for more resources to be used in the conservation and recovery of energy. The resulting shift of resources among uses may also contribute to higher transitional unemployment.

Many of these factors were at work between the mid-1960s and the inflation surge of 1973-1974. Monetary growth accelerated; government spending increased sharply during the Vietnam War; the tax incentives and sustained expansion of the early 1960s created a major investment boom. An expanding world economy coupled with U.S. devaluations stimulated exports and raised the price of imports, and crop failures were widespread in the early 1970s. Finally, world oil prices quadrupled in 1974. These factors were the major causes of the subsequent period of rapid inflation.

In assessing the recent high inflation, it is important to recognize a fundamental difference in inflation triggered by a fall in supply as distinct from one caused by an increase in aggregate demand. The difference is that with a fall in aggregate supply, such as might result from a crop failure or a reduced supply of energy, some real output is irretrievably lost. Economic policy cannot offset the direct, real effects of poor growing conditions or reduced supplies of natural resources, although policy can limit output reductions in sectors not directly affected by supply changes. Inflation triggered by increased demand, in contrast, will not initially reduce real output.

THE PERSISTENCE OF INFLATION

One basic reason for the persistence of inflation is that policymakers strive to achieve low unemployment as well as low inflation. When aggregate demand weakens and unemployment rises, economic policymakers may respond with more expansive policies. Similarly, efforts by policymakers to offset the unemployment effects associated with a fall in supply provide underpinning for continuing upward price pressures.

The response of economic policy to the unemployment effects of changes in aggregate demand and supply is not the only source of persistence in rising prices. Another very important one is the way consumers, labor, and business adapt to the expectation of inflation. In order to describe these adjustments, it is useful to distinguish cases in which inflation occurs unexpectedly from those cases in which the inflation is anticipated. Consider first an economy with approximate price stability, in which the annual rate of price change

varies only between 1 and 3 percent with an average of 2 percent. This was roughly the U.S. experience from the Korean War to the Vietnam War. Given the previous ten years' experience, it was reasonable to assume in 1965 that the inflation rate in the future would be about 2 percent. Reasonable, but wrong.

Because the inflation of the late 1960s and early 1970s was largely unanticipated, the implicit and explicit contracts of trade, finance, and employment were drawn without provision for inflation. As a result, inflation changed the relative price structure and thus led to large redistributions of income and wealth. Creditors generally suffered losses to debtors when debtors made repayment in dollars with reduced purchasing power. Workers whose wages did not keep pace with the average rate of change in prices saw their real incomes decline. ^{3/} In general, those who had agreed to supply goods and services at specified prices on the assumption of a modest rise in prices were stuck with prices that were "too low" until those prices could be renegotiated.

The magnitude of losses resulting from the failure to foresee the inflation caused people to anticipate future inflation and to change their behavior accordingly. The length of long-term, fixed-price contracts tended to be shortened. ^{4/} More time and effort were diverted from other uses to the

^{3/} Some evidence suggests that inflation also changed the relative wage structure. See A. H. Packer and S. H. Park, "Distortions in Relative Wages and Shifts in the Phillips Curve," Review of Economics and Statistics, LV, 1 (February 1973), pp. 16-22.

^{4/} Benjamin Klein, "The Social Costs of Recent Inflation: The Mirage of Steady 'Anticipated' Inflation", Institutional Arrangements and the Inflation Problem, Volume 3 in the Carnegie-Rochester Conferences Supplement to the Journal of Monetary Economics (August 1976), pp. 185-212.

attempt to forecast price changes and to profit from those forecasts. Catch-up wage settlements were made. Provisions for automatic cost-of-living adjustments were negotiated into many labor contracts. At the beginning of 1977, about 60 percent of the workers covered by major collective bargaining agreements were entitled to some cost-of-living escalation. In 1965, only 25 percent of these workers were entitled to such wage adjustments. Where permitted to do so by regulation, interest rates rose to include a higher inflation premium. For example, the long-term, Aaa-rated corporate bond rate rose from 4.5 percent in 1965 to 8.8 percent in 1975. Household survey data show that changed expectations about the future course of prices were not confined to labor leaders, firms, and large investors. The Survey Research Center at the University of Michigan reported that respondents who expected the next year's inflation rate to exceed 4 percent increased from 27 percent in 1966 to 55 percent in 1975.

These changes in the anticipated rate of inflation and in people's behavior reduced, though they did not eliminate, the redistributational consequences of subsequent inflation. By reordering commercial agreements and financial plans on the expectation of inflation, however, they also provided inflation with a very strong momentum.

Once the expectation of inflation becomes incorporated into contracts, informal agreements, and plans, stopping that inflation becomes a very complex feat. Suppose, for example, that economic policymakers try to stop an anticipated inflation quickly through sharply restrictive monetary and fiscal policies. The first effect of these policies is to reduce total spending. But with many prices already scheduled to rise, the principal impact of the spending cutback will be to increase unemployment and to idle productive capacity. In time, these output effects will cause some downward revisions in actual and expected prices, if the demand weakness is considered to be more than just a temporary aberration. These price revisions, in turn, will tend to restore employment levels. Until inflationary expectations are revised downward, though, the major impact of the anti-inflation policy will be on real economic variables such as employment, production, and income.

An actual rate of inflation below the anticipated rate also has redistributational consequences similar in character but opposite in sign to those resulting from an actual rate

above the anticipated rate. In this case, debtors lose and creditors gain. Buyers who have contracted to purchase goods at prices reflecting inflationary expectations lose and sellers gain.

Although the distinction between anticipated and unanticipated inflation is helpful in assessing inflation's effects and in appreciating how it acquires a momentum, all inflation is to some extent unanticipated. Not everyone will anticipate the actual rate correctly. Given wide variations in the actual inflation rate, such as that of the United States during the last five years, people will anticipate, with varying degrees of likelihood, a range of inflation rates. A large number of possible outcomes amounts to increased uncertainty. Such uncertainty is, in itself, undesirable and many people would pay something to avoid it. But awareness of a whole range of possible inflation rates also means that, as prices change, economic units will not be able to distinguish clearly a relative price change (for example, a change in the real value of what they have to sell) from a general inflation price change. People, therefore, experience greater difficulty in interpreting the meaning of price changes during inflation. As a result, the price mechanism becomes a less efficient communications system.

POLICY OPTIONS FOR REDUCING INFLATION

If policymakers wish to attempt to slow inflation, a wide variety of options is available. Most of these either reduce aggregate demand or increase aggregate supply. Four types of policies are considered here: a deflationary macroeconomic policy; wage-price controls or guidelines; ad hoc price reduction measures aimed at selected markets; and tax incentives designed to encourage price stability. These policies would have different effects on inflation, both with respect to timing and total impact. Most would prove costly in terms of other Congressional goals.

A Deflationary Fiscal or Monetary Policy

There is a sense in which it is correct to say that inflation continues only because economic policy permits it to do so. Monetary and fiscal policies exist that could arrest

the rise in the price level. The cost of those policies in terms of unemployment and lost production would be great, however. Given the strength of inflationary expectations, even the goal of a modest reduction in the rate of inflation risks stalling the recovery, though the inflation-arresting effects of such a policy could be pronounced in the more distant future. The tradeoff of current employment and output for future price stability could be avoided only if price expectations were to be revised down quickly in response to a deflationary policy and if the prices in contracts and agreements could be adjusted immediately in line with those new expectations.

Econometric analysis carried out by CBO suggests that a fiscal policy change equivalent to a \$43 billion cut in federal government expenditures--about two percent of GNP--below a current policy projection starting in fiscal year 1978 would be required to reduce the inflation rate by 1 percentage point in 1980. As shown in Table 2, such a policy is estimated to reduce real GNP (1972 dollars) by \$51 billion in the first year and \$61 billion (about 4 percent) in the second year. The negative effect on employment would be at its peak in the second year, when the average annual unemployment rate would be increased by 1.6 percentage points, or about a million and a half unemployed workers.

Incomes Policies or Wage-Price Controls

The importance of inflationary expectations in the perpetuation of inflation and the desire to reduce those expectations without paying a high price in terms of unemployment has often prompted the suggestion that wages and prices ought to be controlled more or less directly through so-called incomes policies.

The United States has had some experience with several forms of these: mandatory controls during the Korean War; guideposts and "jawboning" (attempting to affect prices by persuasion) during 1962-1966; the New Economic Policy of 1971-1974 which included periods of wage-price freeze as well as more flexible mandatory and voluntary controls; and the current activities of the Council on Wage and Price Stability whose principal instruments are persuasion and publicity.

TABLE 2. ESTIMATED EFFECT OF A CUT IN FEDERAL GOVERNMENT
SPENDING TO REDUCE INFLATION BY 1 PERCENTAGE
POINT, FISCAL YEARS 1978, 1979, and 1980

	1978	1979	1980
Change in Federal Purchases (Billions of Dollars)	-43	-43	-43
Change in the Inflation Rate <u>a/</u> (Percentage Points)	-0.3	-0.8	-1.0
Change in Real GNP (Billions of 1972 Dollars)	-51	-61	-40
Change in the Unemployment Rate (Percentage Points)	+1.2	+1.6	+1.2

a/ Fourth quarter over fourth quarter change in the CPI.

NOTE: In all cases, "change" refers to the difference from a
baseline projection without the spending reduction.

Controls on prices and wages seem to be a direct and low-cost cure for inflation. During periods when such controls have been in effect, they appeared to have held down the rate of inflation somewhat. But, while the cost of a general deflationary monetary or fiscal policy is likely to be painfully apparent in the unemployment figures, the substantial costs of incomes policies are mostly hidden. The more restrictive the policy--a complete freeze is an extreme example--the greater the likelihood it will succeed in temporarily holding down the measured rate of inflation but the greater its costs.

A recent CBO study of incomes policies 5/ reviewed U.S. experience and identified some of the difficulties associated with these programs. Fundamental among these has been the difficulty of establishing a ruling "principle behind the policy"; that is, a set of decision standards that are efficient and equitable while also effective and feasible. Such a set of standards may not exist. As a consequence, the policies seem to lead to inefficiencies and inequities and a breakdown of public support. The administrative cost of controls can also be substantial. In addition, these policies are often thought to create a depressing climate for business enterprise and investment.

Specific Market Interventions

There are two distinct, separable aspects of an anti-inflation strategy of intervention in particular markets. For one, it is suggested that the government intervene directly in some markets to hold down prices. For the other, the intent is to reduce and abolish government-mandated minimum prices.

The notion of a selective incomes policy is based on the idea that by directly retarding the rate of increase for those key goods and services that are going up in price most rapidly, inflation can be slowed. Rapid price increases in a particular sector are usually symptomatic of fundamental conditions peculiar to that industry. For example, a recent Council on Wage and Price Stability study 6/ of health care cost found ". . .that unique structural characteristics of the health care industry underlie its extraordinary inflationary behavior." Specifically, ". . .the primary supplier of medical services, the physician, usually determines the level of services required by the consumer. . . .Moreover, medical services are

5/ CBO Background Paper, Incomes Policies in the United States: Historical Review and Some Issues (May 1977).

6/ Council on Wage and Price Stability, The Complex Puzzle of Rising Health Care Cost: Can the Private Sector Fit It Together? (December 1976).

largely paid for through a system of third-party payors, insurance companies and government health programs . . ." that weakens the incentives physicians, hospitals, and patients may have to hold down costs. "Any policies aimed at mitigating inflation in this sector must address these structural peculiarities."

Even if some form of intervention--such as the proposed Hospital Cost Containment Act of 1977 which aims to restrict the growth of hospital revenues and capital expenditures--is adopted and proves effective in substantially cutting the rise in medical costs, the direct effect on inflation will be rather small. For example, if the 1976 rise in medical care costs had been cut by one-fourth, the CPI would still have risen by 5.6 percent instead of the 5.8 percent actually realized.

A number of government policies, adopted for other reasons, are in force whose effects are to raise prices. Examples include minimum wage laws, agricultural and dairy price supports, restrictions on imports, the regulation of transportation rates, and environmental and health/safety regulations. Reduction or repeal of these measures over a period of time is sometimes suggested as a means of reducing the rate of increase in prices and lowering inflationary expectations. Repeal, of course, would cause some considerable losses to the beneficiaries of these policies and hence would encounter determined opposition.

All of these options for stopping inflation are costly: general deflation risks ending the recovery; wage and price controls can temporarily suppress inflation but at the cost of misallocating resources and creating inequities; selective controls aimed at particular sectors of the economy will eventually have to come to grips with the underlying reasons for rising prices in that sector; and many interests will defend the continuation of government price supports.

Tax-Based Incomes Policies and Related Proposals

In recent years there have been proposals to use tax incentives and other schemes to encourage more moderate price behavior. Like the incomes policies described above,

these mechanisms are generally directed at decisions of individuals, with the goal of ensuring that wage rates, on average, do not rise much faster than labor productivity. Rather than overriding market forces, these newer proposals attempt to take advantage of market incentives by making moderate price and wage increases a matter of self-interest for firms and employees.

The best known of these proposals involves tax incentives to reward or penalize wage decisions that deviate from some established standard. A number of such tax proposals exist but only two specific examples are described below.

The first approach, aimed at employers, would tax employers who grant wage increases in excess of the standard. ^{7/} It is assumed that the tax surcharge could not easily be passed on to consumers by way of higher prices because some competitors might not have incurred as large a surcharge. As a result of the tax employers would become more resistant to wage demands.

A more recent proposal uses tax incentives to restrain employee wage demands. ^{8/} Under this proposal, payroll taxes would be reduced for employees in proportion to the degree of wage restraint exercised. If the average wage for a firm increased 1 percent less than some designated standard, then the payroll tax rate would be cut by, perhaps, a full percentage point for the employees of that firm. The tax cut would last for one year only, unless wage increases in the following year were again held below that year's standard.

^{7/} Sidney Weintraub and Henry Wallich, "A Tax Based Incomes Policy," Journal of Economic Issues (June 1971), pp. 1-19.

^{8/} Lawrence Seidman, "A Payroll Tax Credit To Restrain Inflation," National Tax Journal, XXIX.4 (December 1976), pp. 398-412.

Other innovative anti-inflation mechanisms would not employ tax incentives, but would rely instead on the federal distribution of marketable wage-increase permits, without which firms could not raise wages. ^{9/} These permits would allow wage increases equal to 3 percent of the annual wage bill (the assumed productivity increase) and would be distributed to firms in accordance with their previous annual wage bill and collected from firms according to current wages paid. Because the permits could be traded, growing firms that need to attract more workers would seek additional permits while others, particularly declining firms, would seek to sell their unused permits. But the overall wage bill for the economy could not legally increase faster than the value of total permits issued.

All of these proposals would encounter numerous administrative problems. How is the "standard" wage increase to be determined? How are catchup wage increases and long-term contract agreements to be handled? The tax proposals would have to be carefully designed to prevent the establishment of loopholes.

Moreover, these proposals implicitly assume that labor cost pressures are the principal cause of inflation--a conjectural notion at best. Attempts to broaden the proposals to include profits, interest, and rent would, however, greatly increase their administrative complexity.

Nevertheless, the advantage of proposals that provide incentives for more moderate price changes cannot be dismissed. This appears to be an area where further research, and perhaps some experimentation, could be useful. For now, these proposals must be regarded as uncertain because they are untried.

^{9/} Professor Abba Lerner, Queens College, City University of New York, among others, has proposed a wage permit anti-inflation policy.

CONCLUSION

The best hope for controlling inflation at a reasonably low cost may be in a multifaceted approach of preventing excessive aggregate demand and accelerating the growth in aggregate supply. That is the approach of the Administration's anti-inflation program, as outlined by President Carter on April 15, 1977, which proposes to use various, mild forms of several options simultaneously. In his statement, the President called for a wide range of measures including fiscal discipline with a coordinated monetary policy; increased efforts by the Council on Wage and Price Stability; consultation between labor, business, and government; restraint on hospital costs; reform of government regulation; and tax incentives for increased investment.

None of these policies is likely to reduce the rate of inflation quickly. Yet, taken together and implemented over time they may make a contribution to a slow unwinding of inflation, which is probably the best that can be expected over the next few years.

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